

Claims:

- 1) (Currently amended) A compression device for the limb of a mobile patient comprising:
  - an inflatable sleeve adapted to surround the limb;
  - a conduit attached to said sleeve for delivering fluid to said sleeve; and
  - a portable, wearable controller attached to said conduit that generates and controls the flow of fluid in the device, wherein the sleeve consists of a leg cuff and a foot cuff, and the leg cuff consists of only three cells each consisting of a single compartment, a gaiter cell, adapted to wrap fully around the lower limb in the region closest to the ankle, a mid-calf cell, adapted to wrap fully around the lower limb above the region occupied by the gaiter cell and an upper cell adapted to wrap fully around the lower limb in the region between the mid-calf cell and the knee and wherein each cell is monitored by a sensor and the cells are pressurized to different pressures wherein the upper cell and mid-calf cell alternate in providing compression so that the mid-calf cell provides higher compression when blood is being expelled from the leg and the upper cell provides higher compression to prevent backflow at rest.
- 2) (Original) The compression device as claimed in claim 1 wherein said controller comprises a microprocessor control system and a pump.
- 3) (Original) The compression device as claimed in claim 1 wherein at least one pressure sensor is associated with said sleeve.
- 4) (Canceled)
- 5) (Original) The compression device as claimed in claim 1 wherein said sleeve is low profile and discrete.
- 6) (Canceled)
- 7) (Original) The compression device as claimed in claim 6 wherein said leg and foot cuffs are anatomically shaped to provide compression on those parts of the leg or foot which have the greatest effect on blood flow.

- 8) (Original) The compression device as claimed in claim 1 further comprising a sock interposed between said sleeve and the limb.
- 9) (Canceled)
- 10) (Original) The compression device as claimed in claim 1 wherein said controller is battery operated.
- 11) (Previously presented) The compression device as claimed in claim 1 wherein each cell is monitored by a sensor.
- 12) (Canceled)
- 13) (Canceled)
- 14) (Previously presented) The compression device as claimed in claim 1 wherein said cells may be pressurised to the same or different predetermined pressures.

Claims 15-18 (Canceled)

- 19) (Previously presented) A method of preventing or treating venous insufficiency, oedema, DVT or post-thrombotic syndrome comprising applying a compression device of claim 1 to the limb of a mobile patient.
- 20) (Previously presented) A compression device for the limb of a mobile patient comprising:
  - an inflatable sleeve adapted to surround the limb;
  - a conduit attached to said sleeve for delivering fluid to said sleeve; and
  - a portable, wearable controller attached to said conduit that generates and controls the flow of fluid in the device, wherein the sleeve comprises a leg cuff and a foot cuff, and a sock is interposed between said sleeve and the limb.